Leaptronix®

User's Manual

AH-480 Series [Machine / Software]

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Chapter 1 Product Introduction

1-1 Introduction

AH-480 is an expeditious automated programming system. It is based on a rotary robotic arm, in conjunction with two special nozzles for picking up and placing IC components, to achieve fast motion and precise position. Especially for IC components packaged in tray, tube, or tape, it can perform programming efficacy more thoroughly. Besides, AH-480 can go with high-speed programmers LP-56 to promote programming throughput largely. It is the automated programming device with the most economic benefits in market.

1-2 Features

1. Powerful Functionality:

AH series are special-purpose machines designed for massively programming IC components packaged in tray, tube, or tape. The loaders and unloaders for different IC packages can be changed very quickly according to different requirements. In additional to programming, they also provide marking and packaging.

2. Intelligent Operation:

Through the design of intelligent operation, AH-480 can automatically perform a serial steps such as loading, positioning, programming, sorting, marking, and unloading under the system control.

3. High-Speed Programming:

The built-in high-speed and high-stable LP-56 programmers make AH-480 a trust-worth programming system.

4. Addable Marker:

The system can assort with unloaders to offer marking of dots, numbers, or characters before IC components packaged in tube or tape.

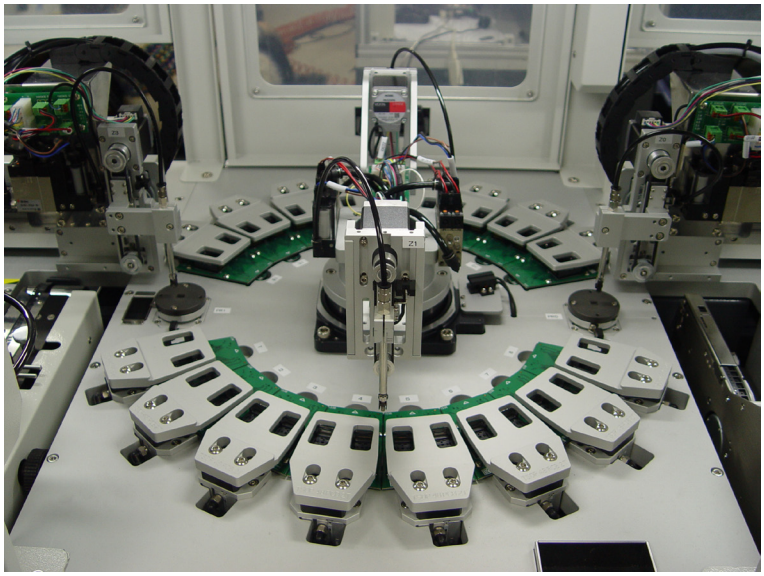
5. Convenient Maintenance:

AH-480 provides an easy and fast way to change IC packages from tray to tape, tube to tray, tube to tape, or vice versa. The special modular design of the system lets the maintenance, repair, and replacement become quite simple.

6. Operation Software:

The user-friendly interface makes the operation easier. The powerful operation software can store the preset data for rebooting and record the programming results for tracking quality and productivity.

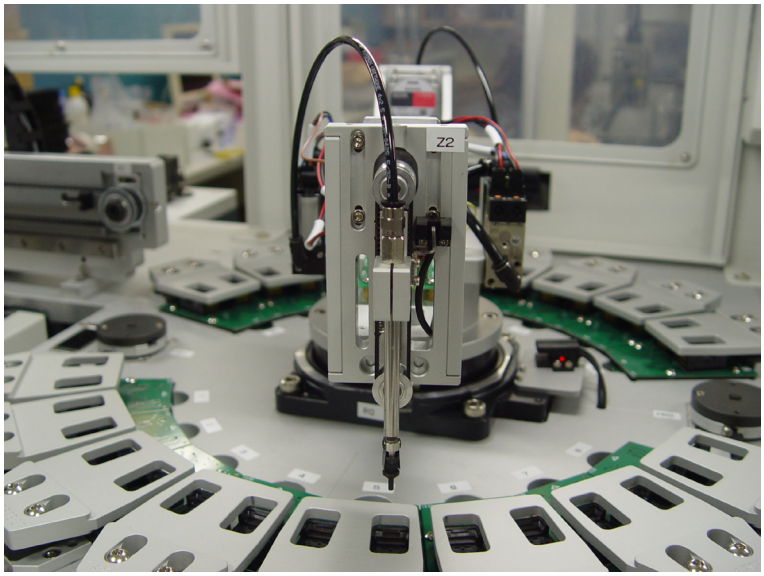
◎Rotary Motion Unit:



The innovative mechanism of the rotary motion unit is the core of AH-480. With its rapid moving and precise position, the system can achieve 2,800 units per hour (UPH).

◎Precise Position System:

Each pickup-and-place axle comes with a high dynamic nozzle. When coupled with precissors that can correct deviation, the position accuracy can be ensured.



◆ The innovative design of the product AH-480 has obtained several patents on the improvement in pickup & placement apparatus of IC programming devices:

Taiwan Patent No: M 306360

China Patent No: ZL2006-2-0137588.6

Japan Patent No: 3129604

Chapter 2 Product Specifications

2-1 Appearance

2-2 Basic Specifications

Transmission System	Throughput	UPH 2.8k
	Repeatability	X axis + 0.02mm Z axis + 0.02mm
	Max. stroke	X axis 350mm Z axis 50mm
	Pick & Place method	Multi vacuum nozzles
	Component detection	Vacuum sensor
	Dimensions (including ATM)	1810(H) x 1550(L) x 1150(W) mm
	Net Weight	~380kg

Positioning System	Positioning	Precissor
	Precissor Dimensions	max 30 x 30 mm
Programming System	Resident programmer	LP-56 Programmer
	Socket site	1~48
	Pin driver	48 universal pin drivers per set
	Devices supported	EPROM, EEPROM, FLASH, MCU
	Applicable packages	SOP, SSOP, SON, TSSOP, MLP, QFN, PLCC-20, PLCC-28, PLCC-32
	File formats supported	INTEL HEX, MOTOROLA HEX, TEK MEX, ASCII HEX, BINARY...
	Communication	USB 2.0
	Safety	CE compliant
Loader/ unloader System	Tube-in	150mil, 207mil, 300mil, 330mil
	Tube-out	150mil, 207mil, 300mil, 330mil
	Tape-in	Available for tape with 8~24mm tape width
	Tape-out	Press-sealing mode. Accept tape with 8~24mm
Control System	Operating system	PC-based control with Windows XP
	Display	LCD monitor
	Data entry	keyboard/mouse
Operating Requirements	Input voltage	AC200~245V, Single-phase, 3-wires
	Input line frequency	50/60Hz
	Power consumption	1.0 KVA
	Air pressure	0.6MPa(~6.0kg/ cm 2)
	Air flow	32 liter/min.

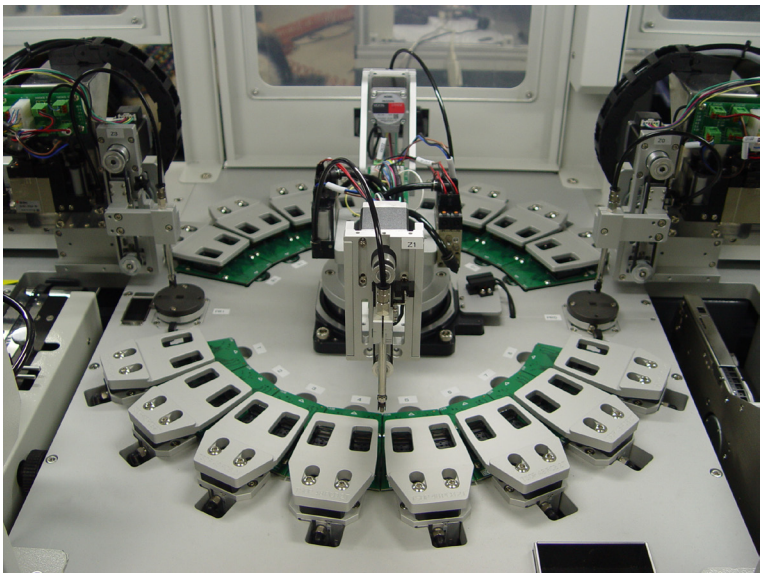
Chapter 3 Illustration of AH-400 Configuration

3-1 Illustration of the Equipment

1. Three-color indicator (Alarm)
2. Feeding area
3. Keyboard and mouse
4. Front door
5. Electric appliance front door
6. Carrier recycling area
7. Monitor
8. Control buttons
9. Unloading area (with optional maker)

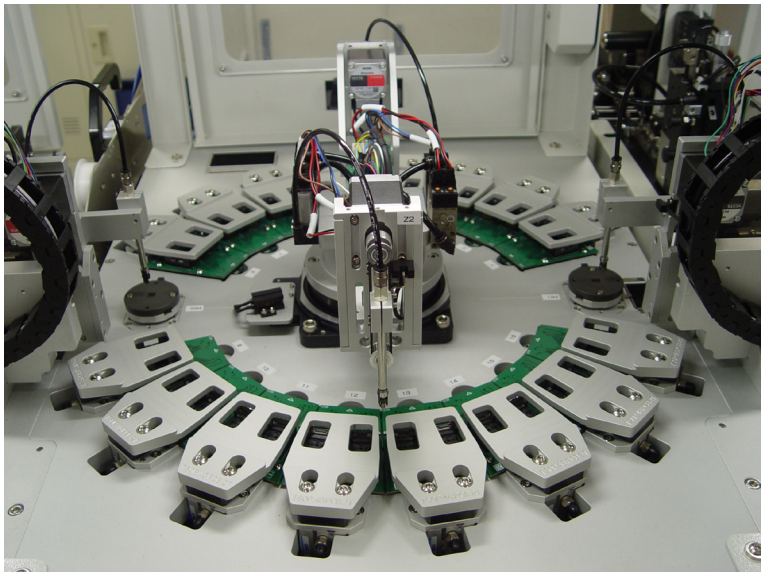
3-2 Illustration of the Programming Area

● Front View



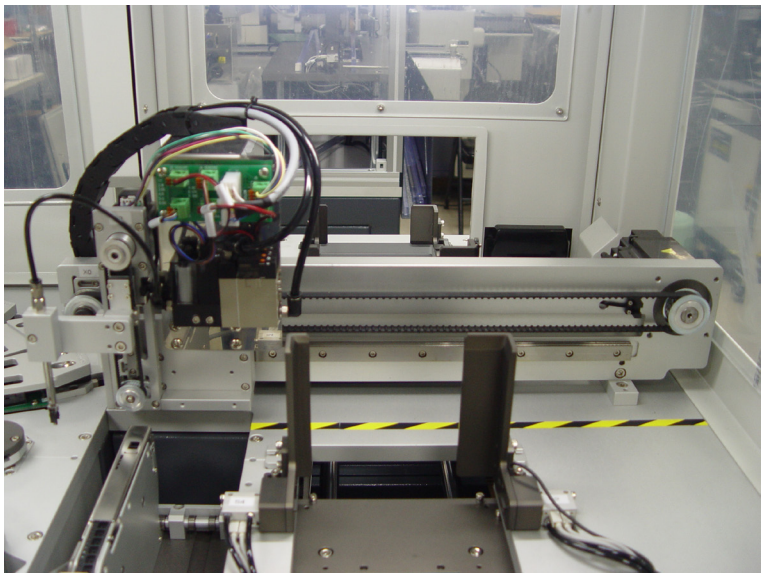
1. R0 axis
2. PR0 axis
3. IC programming failure recycling box
4. Programmer 1
5. Programmer 2
6. Programmer 3
7. Programmer 4
8. Z1 axis
9. Programmer 5
10. Programmer 6
11. Programmer 7
12. Programmer 8
13. PR1 axis
14. Safety sensor of front door

- Rear View



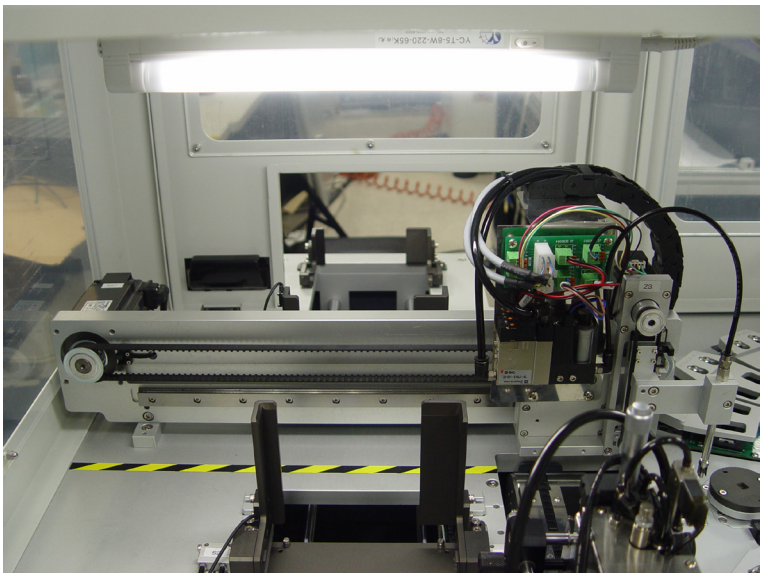
1. Programmer 9
2. Programmer 10
3. Programmer 11
4. Programmer 12
5. Programmer 13
6. Programmer 14
7. Programmer 15
8. Programmer 16
9. Safety sensor of back door

- Input View



1. X0 axis
2. Z0 axis
3. Y0 axis
4. TZ0 axis
5. Feeder-in or Tube-in
6. Tray-in

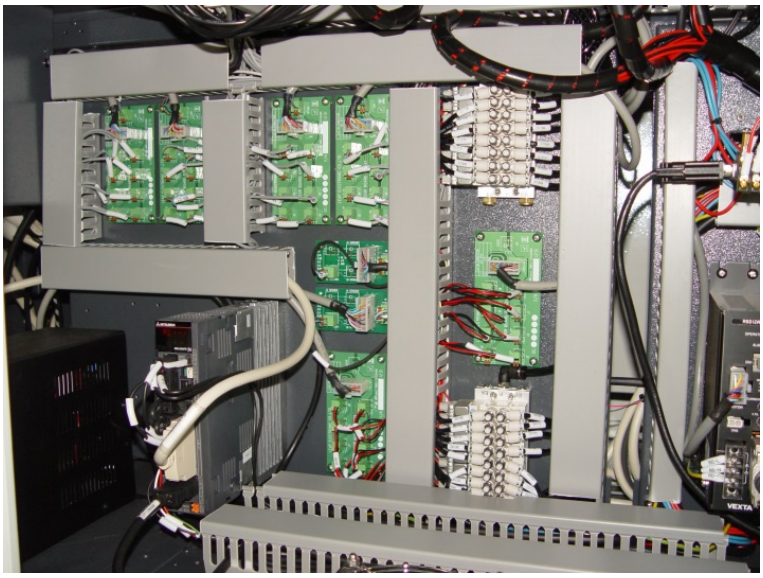
● Output View



1. X1 axis
2. Z3 axis
3. Y1 axis
4. TZ1 axis
5. Feeder-out
6. Tray-out

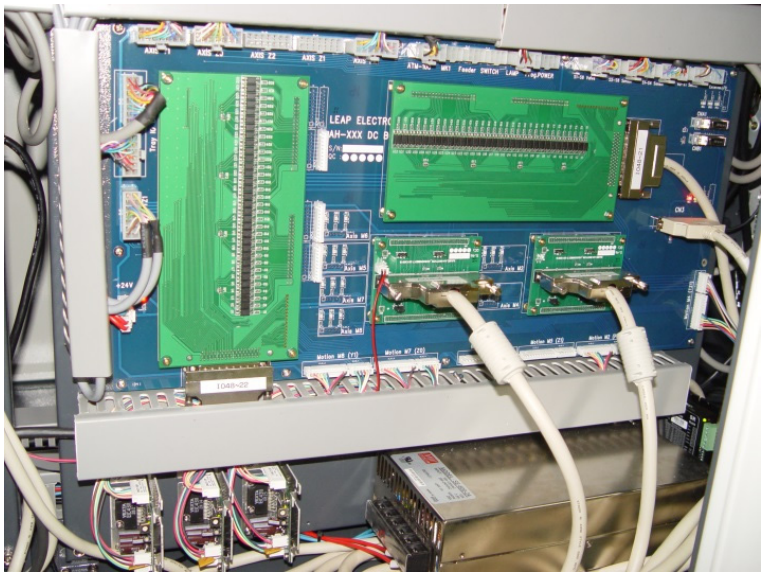
3-3 Illustration of Circuit Distributors

● Main Circuit Distributor



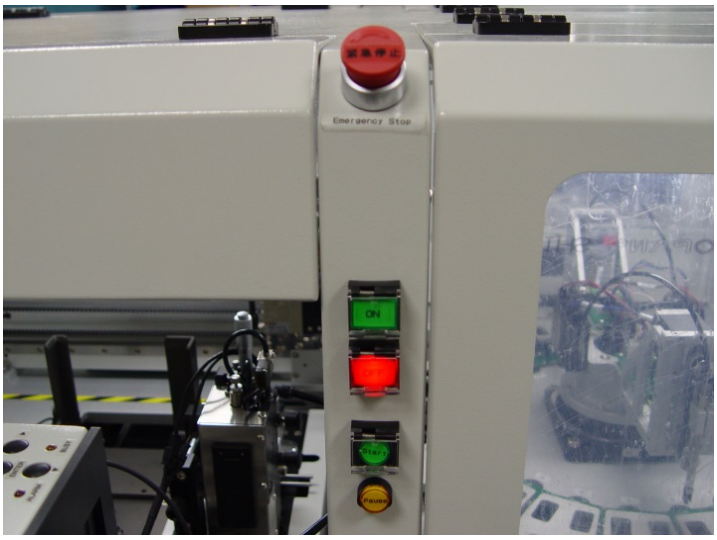
1. Time Delay Switch
2. Fuse
3. AC control circuit board
4. Relay
5. R0 axis driver
6. X0 axis driver
7. X1 axis driver
8. Breaker
9. Magnetic switch

- Control Circuit Distributor



1. DC control board 0
2. DC control board 01
3. I/O convert board 0
4. I/O convert board 1
5. I/O convert board 2
6. I/O convert board 3
7. Motion Convert board 0
8. Motion Convert board 1
9. Motion Convert board 2
10. Motion Convert board 3
11. Z0 axis driver
12. Z1 axis driver
13. Z2 axis driver
14. Z3 axis driver
15. PR0 axis driver
16. PR1 axis driver
17. Y0 axis driver
18. Y1 axis driver

3-4 Illustration of Control Buttons

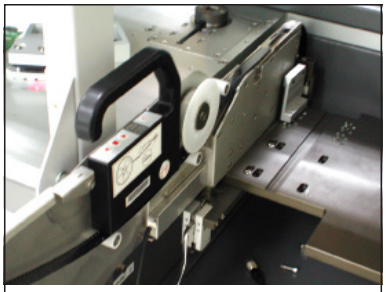


1. Emergency stop button
2. Power on button
3. Power off button
4. Start button
5. Pause/Resume button

3-5 Loader and Unloader Systems

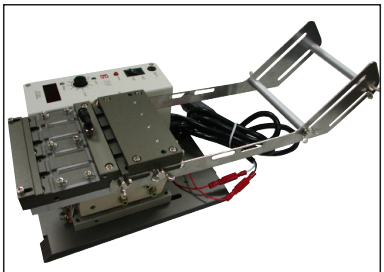
● Loader System

(1) Automatic tape feeder (FEEDER)



ATF-1

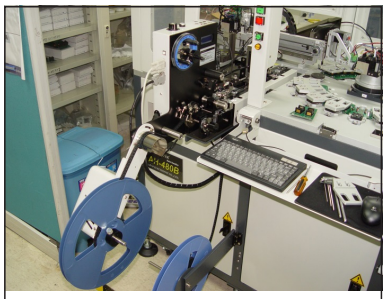
(2) Semiautomatic tube loading machine



STI-4-XXXkit

● Unloader System

(1) Automatic taping machine



ATM-32

(2) Semiautomatic tube unloading machine

STO-4-XXXkit

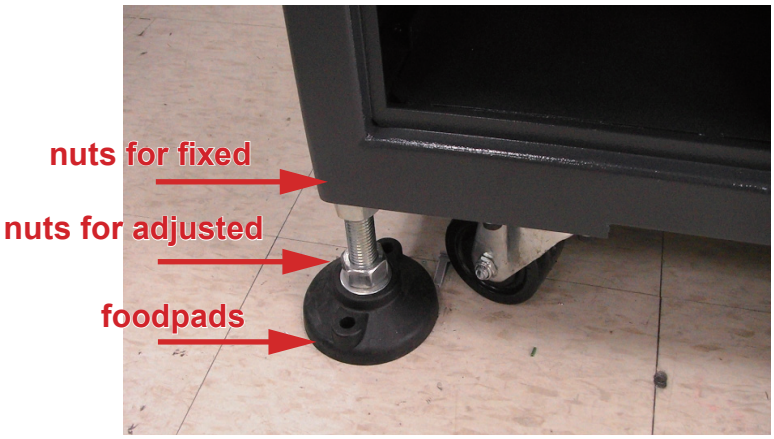
Chapter 4 Operation Procedure

4-1 Basic Equipment Installation

Before using the equipment, it should be fixed well and connected to the air source and power. After inspecting all the accessories have been installed successfully, then the power can be turned on to start the operation.

*.NOTE: Please make sure you have indeed followed the installation procedure and have inspected each installation step carefully.

4-1-1 Equipment Fixation



After determining the location of the equipment, use a wrench to rotate the footpads and to fix the associate nuts. If there is a need to adjust the height of the equipment, release the fixed nuts first and then adjust the footpads.

4-1-2 Power Installation

While installing the power, use a 3-hole socket that supplies single-phase 220V-240V 50/60Hz voltage and contains a ground line.

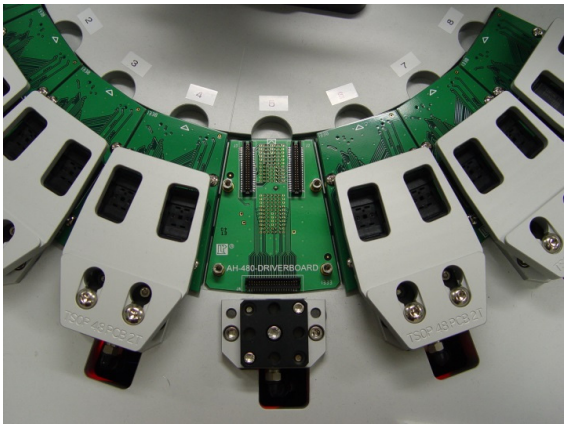
*.NOTE: In the absence of the same type of sockets, please contact us to assist in the installation of power.

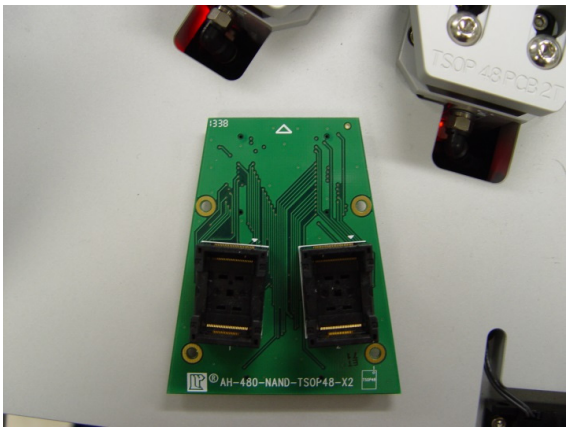
4-1-3 Air Source Installation

Use moisture-free and impurities-free gas as the air source. Since the air pressure requirement of the equipment is 5-6 kg/cm², a stable pressure of 6 kg/cm² is recommended.

4-1-4 Programming Area Installation

A. Programming Socket Sites

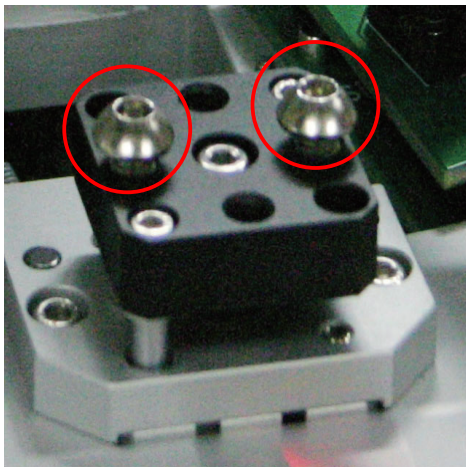




After connecting the flat cable of a programmer to a driver board, install it on the equipment to match with the locating pins, and then lock it with the screws.

*.NOTE: The driver board should be indeed placed through the locating pins. Before installing the socket, make sure whether the model is correct.

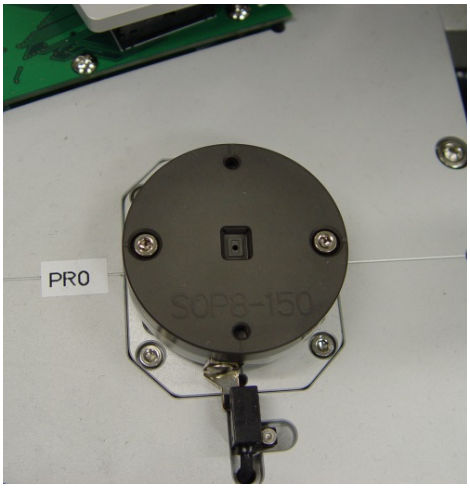
B. Press Modules



Remove the two screws of the left picture. Put on a press bar, and finally lock the screws back.

*.NOTE: Before installation, make sure whether the press bar model matches with the socket model.

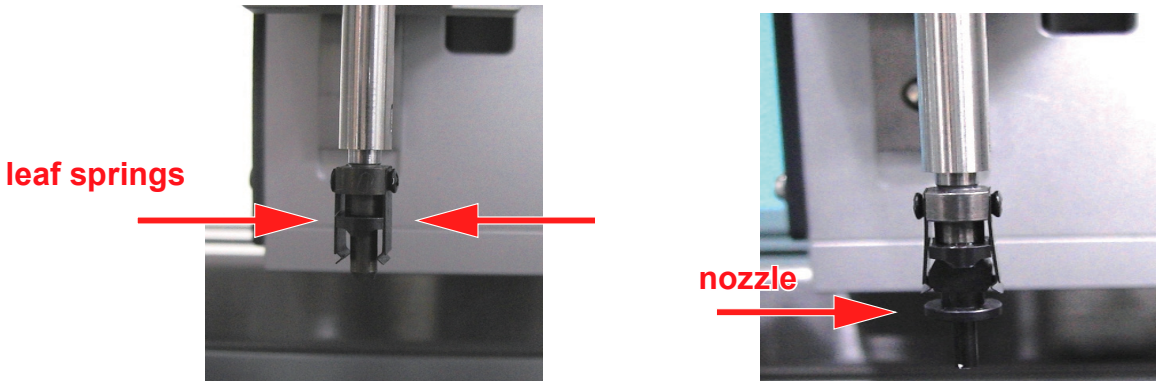
C. Precissors



Remove the two screws of the left picture. Put on a precissor, and finally screw them back.

*.NOTE: Before installation, make sure whether the precissor model matches with the socket model.

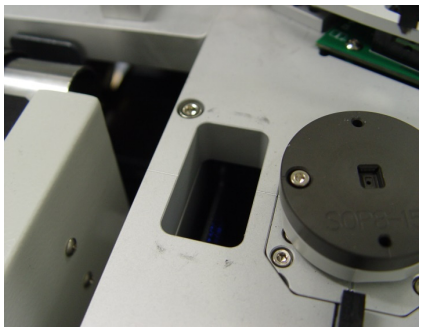
D. Vacuum Nozzles



Install the nozzle from the bottom of the nozzle shaft to the top. Then, clip the nozzle with the leaf springs on the both sides of the nozzle.

*.NOTE: Make sure to rotate the inclined planes of the nozzle such that they match with the leaf springs to fix.

E. IC Programming Failure Box

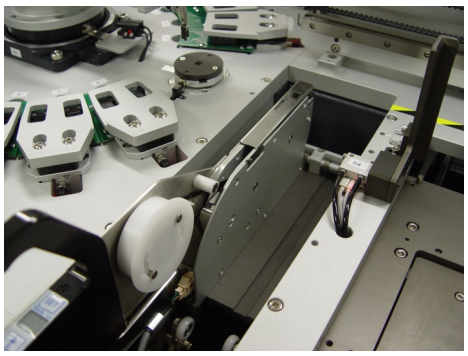


Put the IC programming failure box into its installation position.

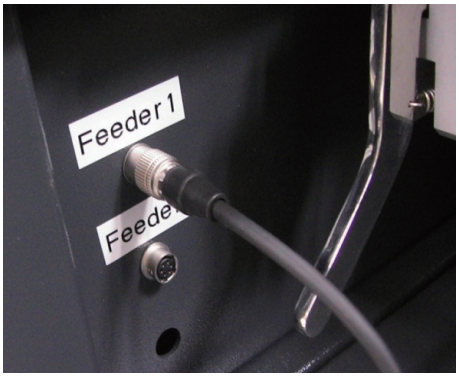
*.NOTE: The IC programming failure box should be completely put on the desktop flatly. Otherwise, the nozzle or shaft will be damaged if it collides with the IC programming failure box while the equipment is running.

4-1-5 Loader/Unloader Module Installation

A. ATF-1 Automatic Tape Loader Module (FEEDER)



Put the IC tape on the FEEDER, and then install the FEEDER into the feeding area.



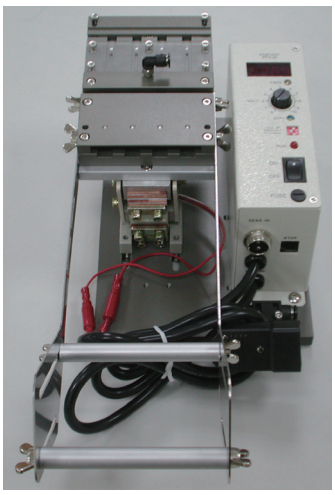
Plug the FEEDER's connector into the “Feeder 1” socket location to complete the installation.

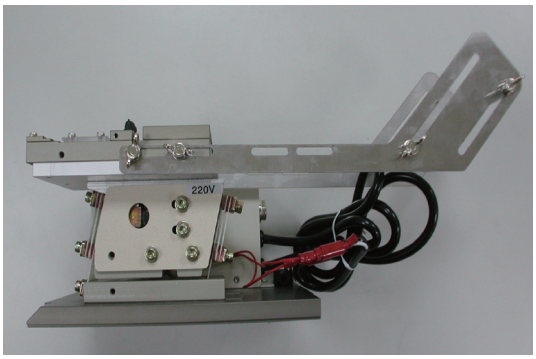
B. RTF Automatic Carrier Recycling Module

For recycling the IC carrier, insert it into the recycling reel. After turning on the power, the RTF module will automatically recycle the IC carrier.

*.NOTE: Adjust the speed of the RTF module to the position of 55. If the tape is too tight, it will affect the stability of loading of FEEDER.

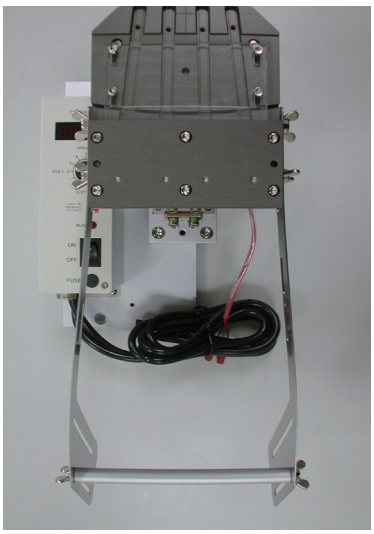
C. STI-4 Semiautomatic Tube Loader Module

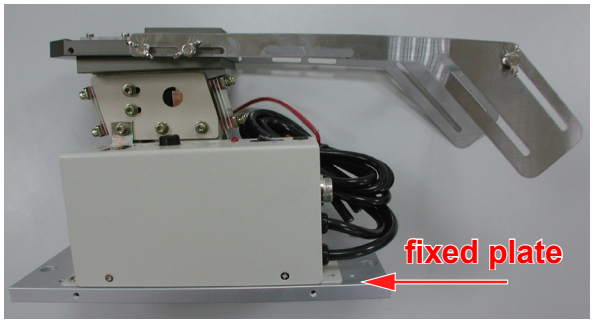




Remove FEEDER module, and install the STI-4 onto the machine. Connect the power line, the air pressure tube, and the COM1 cable to the machine to start the operation.

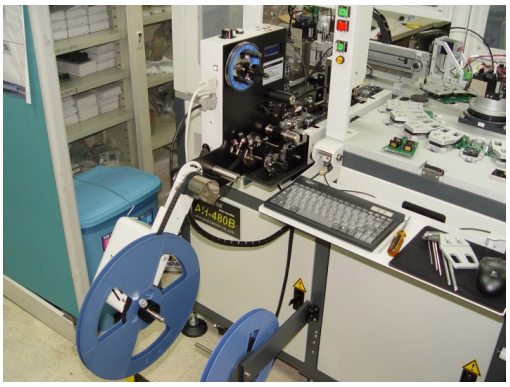
D. STO-4 Semiautomatic Tube Unloader Module





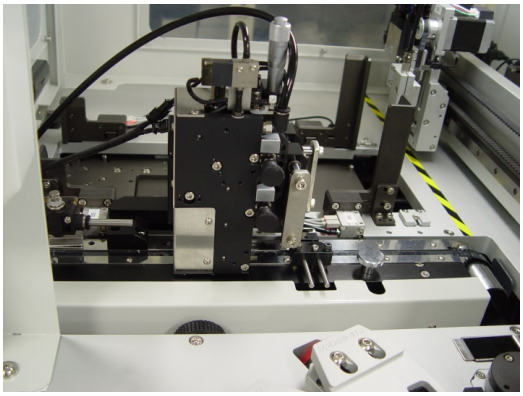
Fix the floor plate of the unloader module STO-4 to the machine. Adjust the IC unloader to the proper place where the machine can correctly put ICs into the tubes. Follow the direction to connect the power and air source. Then, adjust the controller so that ICs will vibrate smoothly into the unloader tubes.

E. ATM-32 Automatic Tape Unloader Module



Install the tape unloader module ATM-32 to the machine and adjust it to the proper place such that the machine can correctly put ICs into the tape. Then, turn on power.

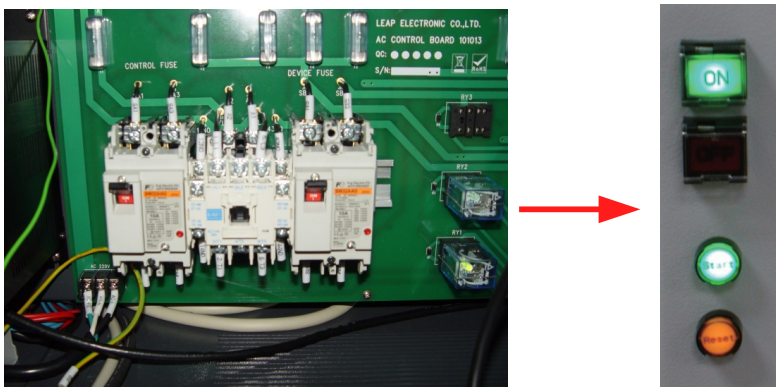
4-1-6 Marker Position Adjustment



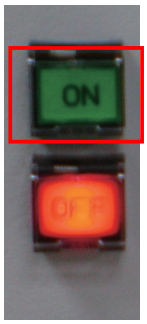
Adjust the location and depth of the marker.

4-2 Boot Procedure

Step 1:After connecting the power, switch the breaker to the “ON” position. Then, the control buttons ON (green), Start (green), and Reset (yellow) will light on, as shown in the following picture.



Step 2:Lift the protection cover of the ON button, and press it. Then, the light of the ON button will turn off, and the light of OFF (red) button will turn on, as shown in the following picture. This means that the main power is turned on.

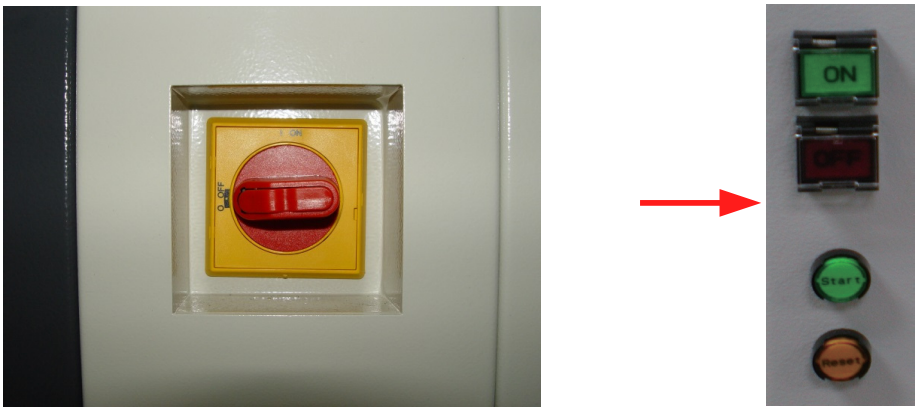


Step 3:Connect the air source and push the manually actuated valve (blue slip ring) to open air. Then, turn on the computer to complete the boot procedure.

4-3 Shutdown Procedure

Step 1:After the system has finished all its operations, power off the computer. Lift the protection cover of the OFF button, and press it to turn off the main power.

Step 2:Switch the breaker to the “OFF” position to completely turn off the power. Then, all the control buttons (ON, OFF, Start, and Reset) will light out.



Step 3:Close the air by pulling the manually actuated valve (blue slip ring) to complete the shutdown procedure.

Chapter 5 Simple Trouble Shooting

5-1 Power

1. After connecting the power, the power ON button does not turn on.
   (1) Check whether the breaker of the main circuit distributor (Section 3-3) is on.
   (2) Check whether the fuse of the main circuit distributor (Section 3-3) is burned out.
2. The equipment cannot be turned off.
   (1) Check whether the timer of the main circuit distributor (Section 3-3) is set too long.
3. There are no responses to the keyboard or the mouse.
   (1) Check whether the cables are connected to the computer properly.
4. There are no responses to the I/O points.
   (1) Check whether the cable of the I/O board of the main circuit distributor
   (Section 3-3) is connected to the main circuit distributor computer properly.

5-2 Air Pressure

1. There are no responses to the cylinder or the vacuum nozzle.
   (1) Check whether the manually actuated valve is opened (Section 4-2).
   (2) Check whether the barometer of air source (Section 4-1-3) is in the correct range (5-6kg/cm2).

5-3 Programmer

1. There are no responses to programmers.
   (1) Check whether the power is turned on.
   (2) Check whether the power of programmers is connected properly.
   (3) Check whether the USB cable is connected properly (including the computer site).
2. The failure rate of programming is too high.
   (1) Check whether the cable is connected with the programming SOCKET (Section 4-1-4) properly.
   (2) Check whether the press module has fully opened the programming SOCKET (Section 4-1-4).
   (3) Check whether the SOCKET is out of usable period.

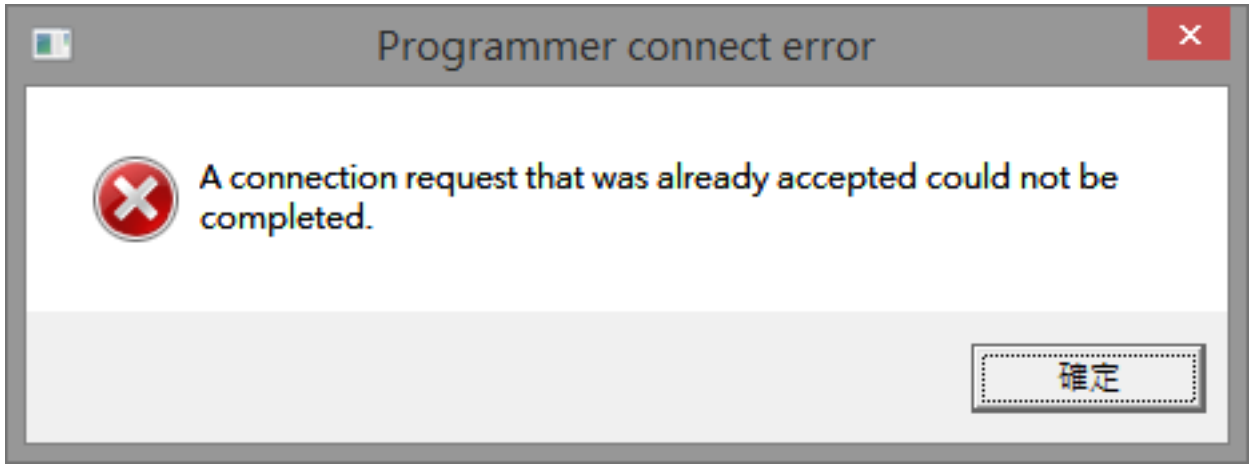
Chapter 1 Operation Processes

This Chapter introduces the software from turn on AH-480, get in the software, log in, load file and parameter setting.

1-1 Execute Software

Turn on the AH-480, turn on the PC, will enter the electronic control software automatically. You can click the icon manually.

It will do the harward check automaticlly after executing the software. If any problem on hardware or file, there is a warning window will show.

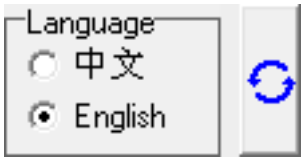


If the above window show, please close the software. Please make sure if the programmer software installation well and open the software again.

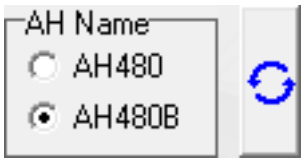
1-2 User Login

Key in the User Name and Password for login.

Close the software.



Switch language.

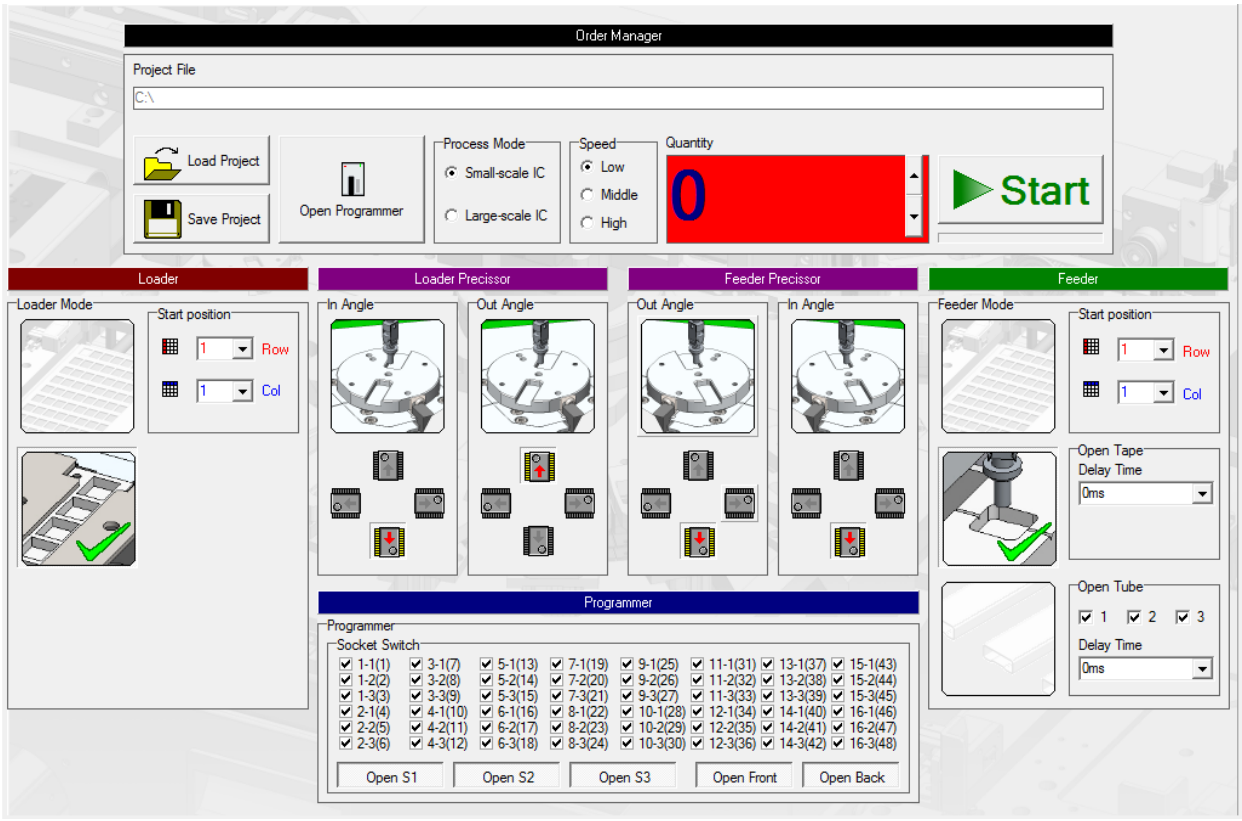


Switch model.

※ Need to reset the software.

Logout. If other UI for logout, will return the login page.

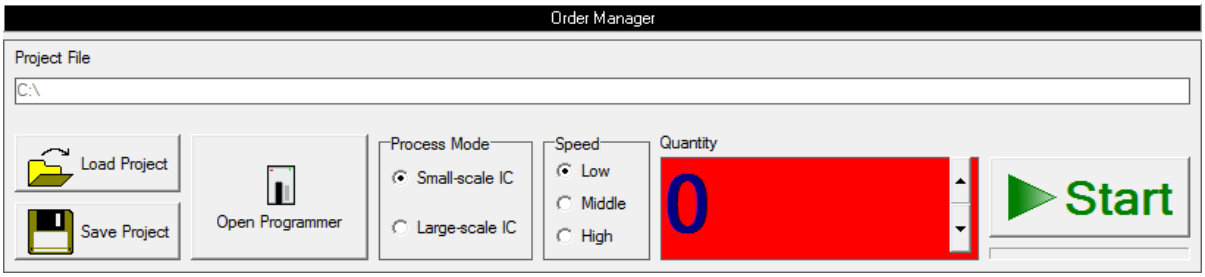
1-3 Main Menu



After enter the system, will go to the main menu. There are following areas.

- Order Manager
- Feeder
- Feeder Precissor
- Loader Precissor
- Loader
- Programmer

1-3-1 Order Manager

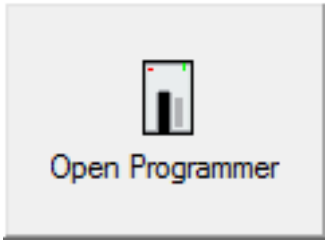


From left to right, the function introductions are as follows.

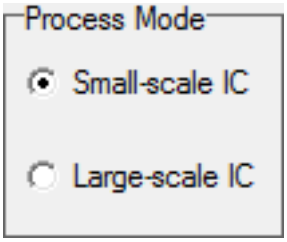
Load the project. Please note that different IC have different project file which must suitable for the IC size.

Save the project. Please set the project name related to the IC for future recognition. It include the follows.

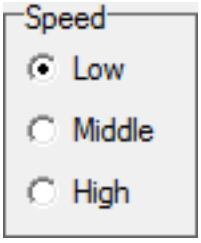
- Mechanism speed
- Movement
- Feeder position
- Programmer position
- Loader position
- Package media of feeder.
- Precissor direction of feeder
- Pressor direction of loader
- Package media of loader



Open the programmer load window. Please select the programming file on this page. You can refer the details on the programmer manual.



When select Small-scale IC, the machine will keep in and out at a time. You can select this for the IC programming time less than 15s. When select Large-scale IC, the machine will put ICs full of the socket first and then control the IC in and out order.

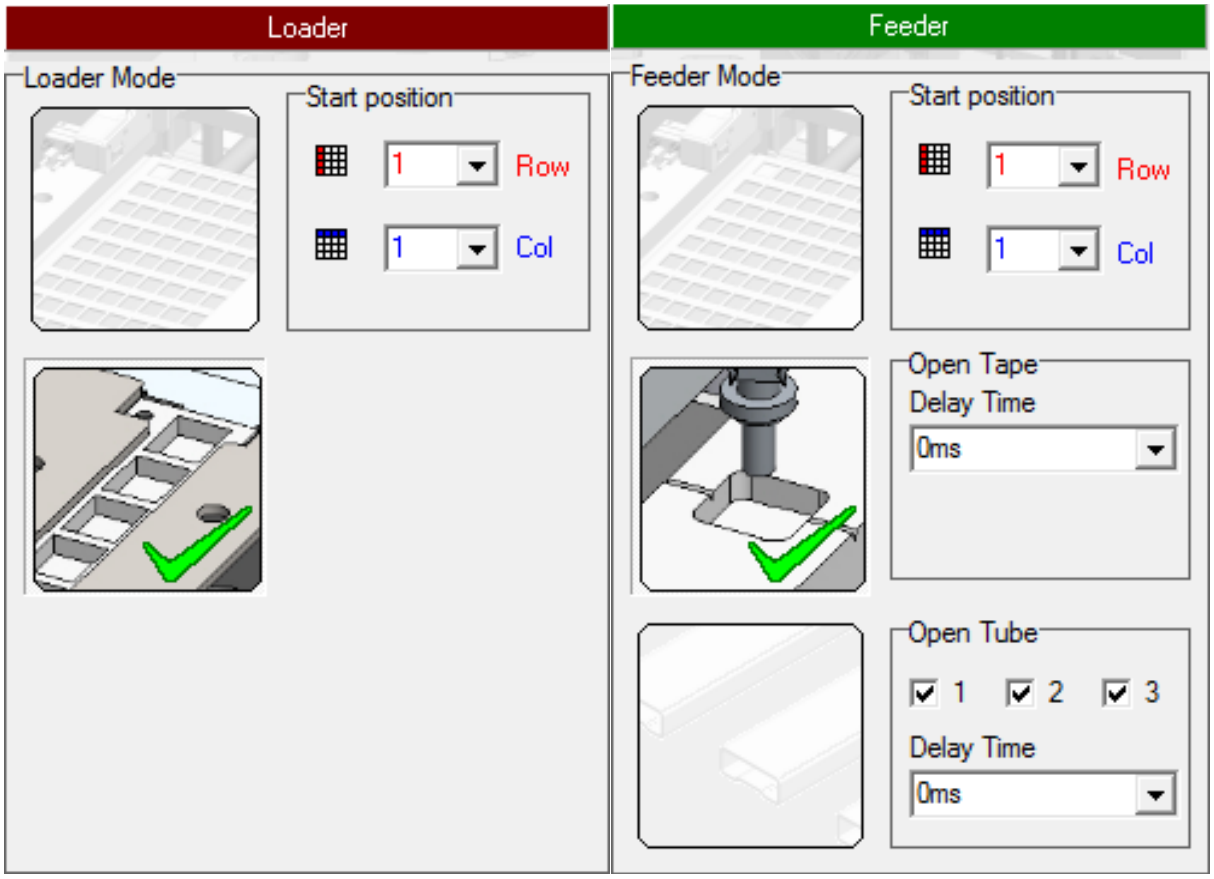


Set the speed.

Set the order quantity. It's can not be 0.

When finish the setting, click this for starting.

1-3-2 Order Mode Selection

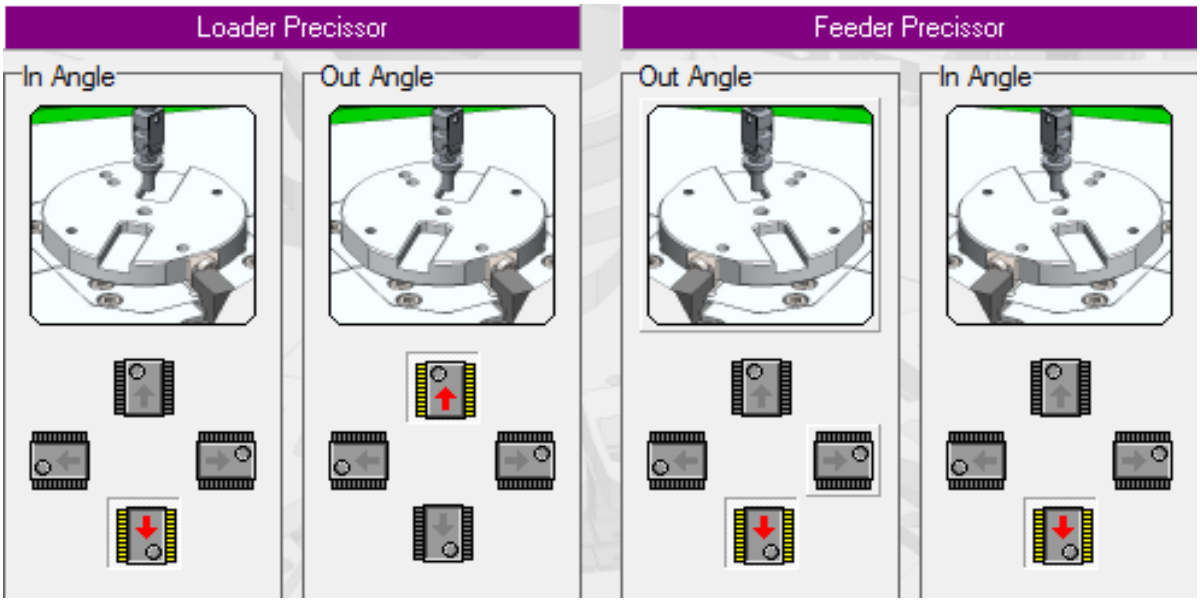


Please select the media for in and out. The Feeder include tray, reel and tube. The Loader include tray and taping. You can select the first IC for the tray, and open tube for 1 to 3.

※ Available medias are as follows.

Model	Tray-in	Reel-in	Tube-in	Tray-out	Reel-out
AH-480		○	○		○
AH-480B	○	○	○	○	○

Setting the precissor angle.

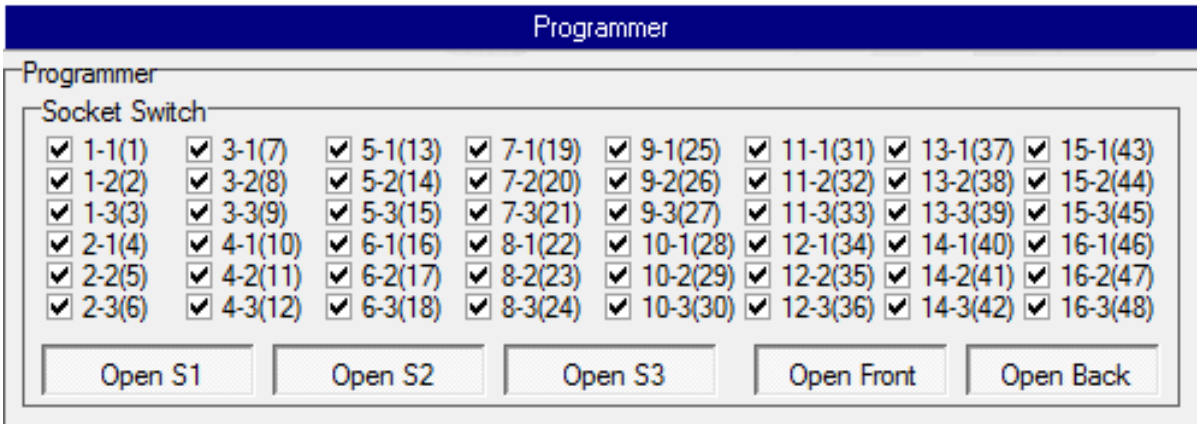


Feeder precissor in angle, the suitable angle for feeding in from X0.

Feeder precissor out angle, the suitable angle for feeding out from R.

Loader precissor out angle, the suitable angle for picking IC from R, then put to precissor.

Loader precissor in angle, the suitable angle for X1 picking IC from the precissor.

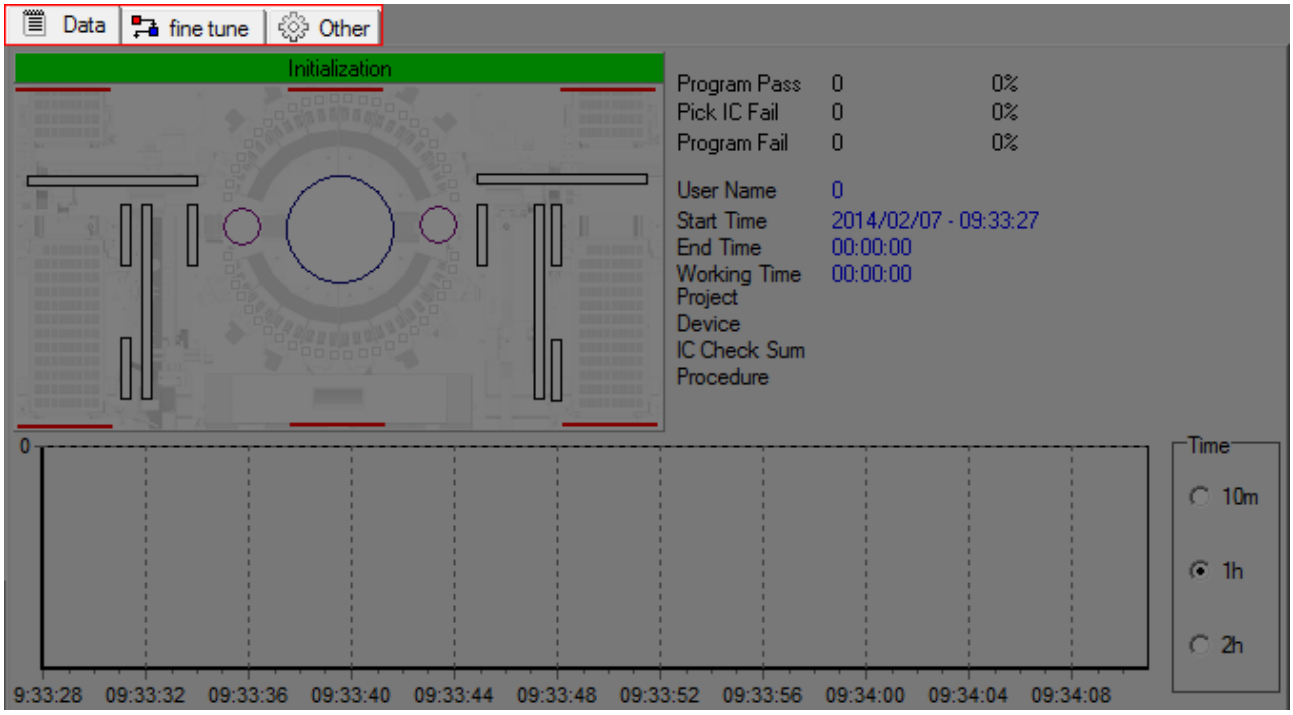


You can select socket switch on this page. At the beginning of the order, if disable the socket, it will not check the socket. On the other hand, the socket can not be opened during the order execution.

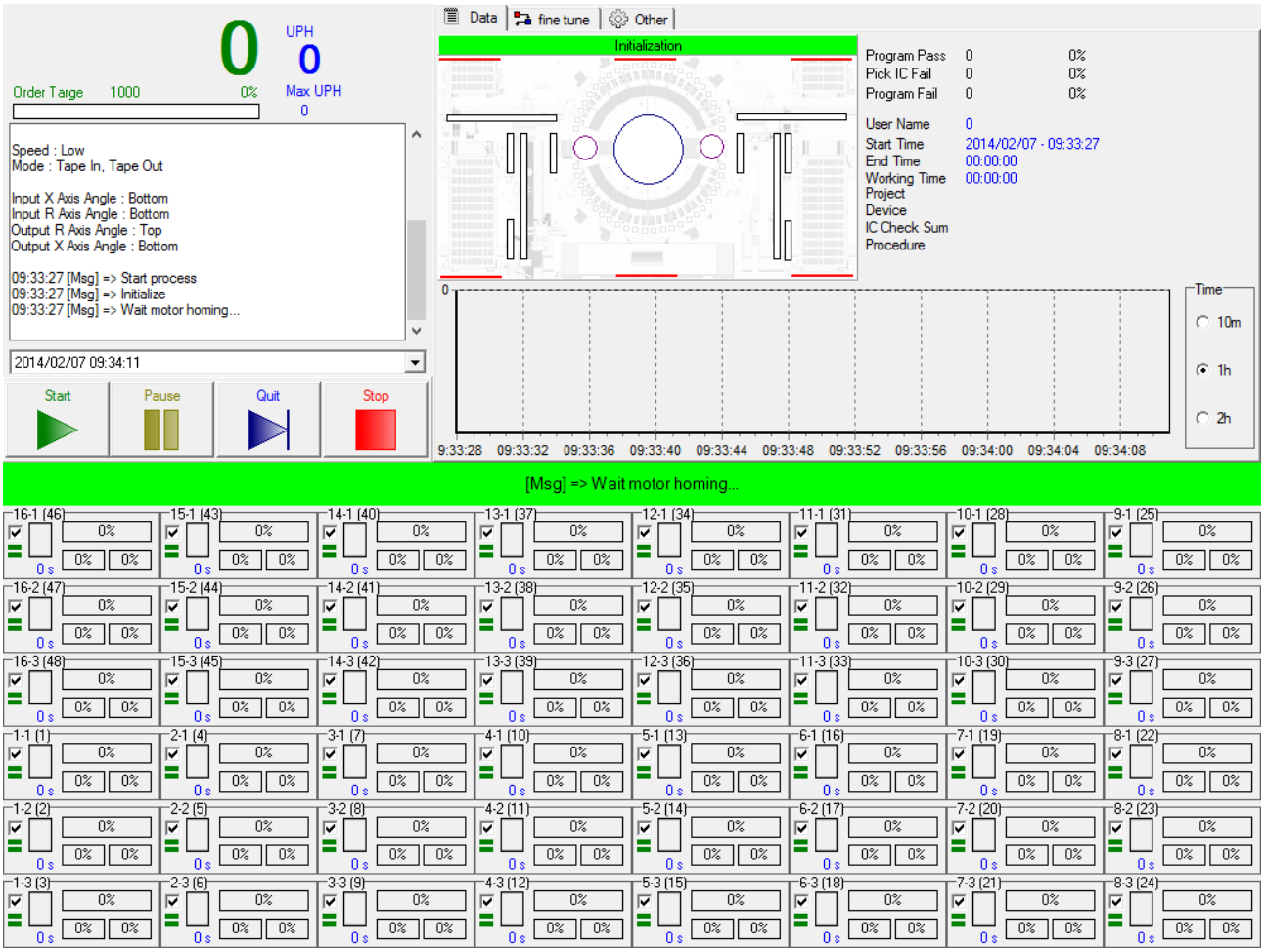
Chapter 2 Order UI

The different level has different right for the machine.

	Basic Authority	Engineers Authority	Supervisor Authority
Date	✓	✓	✓
Fine tune		✓	✓
Other		✓	✓

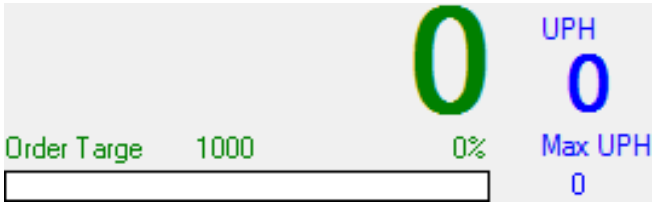


The different level will view the different page contents.



After entering the order page, the system will return motor home and ask if execute cleaning function. The function will make all of the devices to the failed zone if there is IC on the socket. Please check there is no IC left on the socket. If yes, please remove it manually.

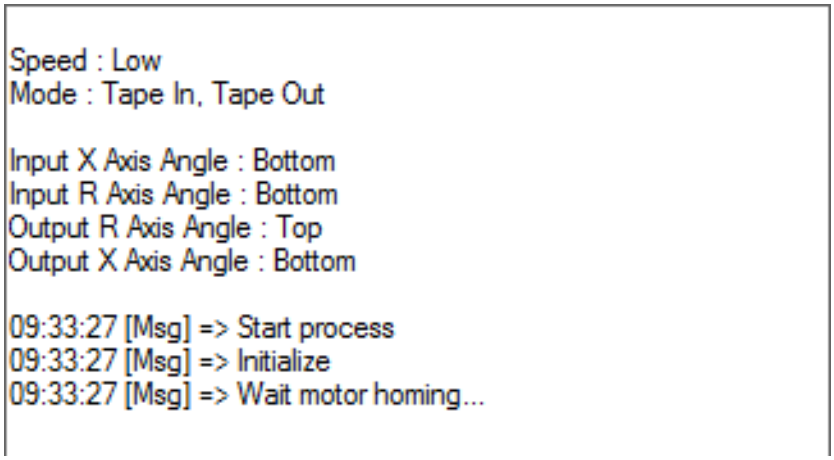
The introduction for the order interface.



Order Target: Finished quantity and the persentage.

UPH: Unit per hour.

Max UPH: The max UPH on this order.


Speed : Low
Mode : Tape In, Tape Out
Input X Axis Angle : Bottom
Input R Axis Angle : Bottom
Output R Axis Angle : Top
Output X Axis Angle : Bottom
09:33:27 [Msg] => Start process
09:33:27 [Msg] => Initialize
09:33:27 [Msg] => Wait motor homing...

The history of the order included all of the data and operation event.

Order operation button.

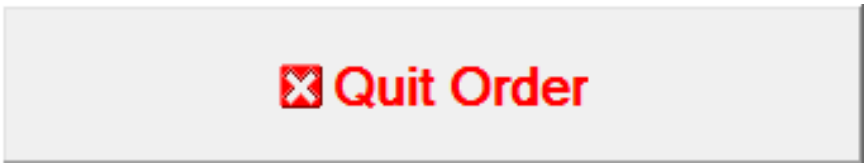
Star: Star the order.

Pause: Pause the order.

Quit: quit feeding and finish the programming for the ICs on the sockets.

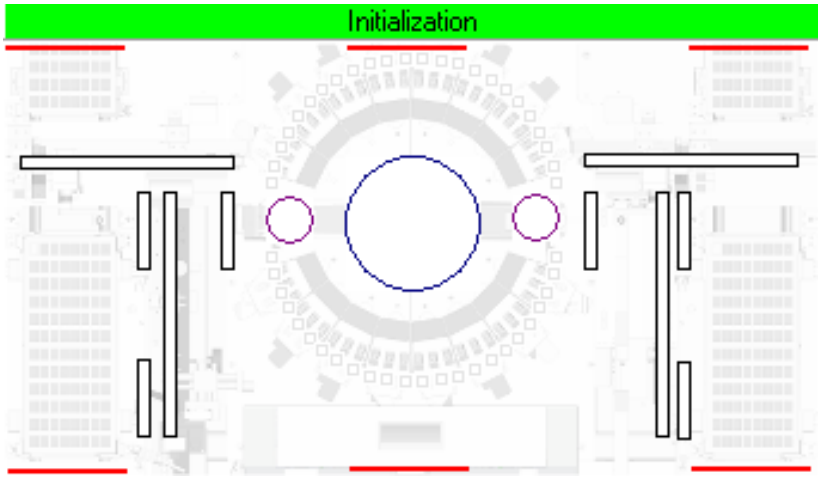
Stop: Stop the order.

※ When you Stop the order during the nozzle is sucking IC, the warning window will show. Please remove the IC manually.



If finish Quit or Stop, the above Quit Order icon will show. And the history will save under AutoSavedReport automatically.

2-1 Machine Status

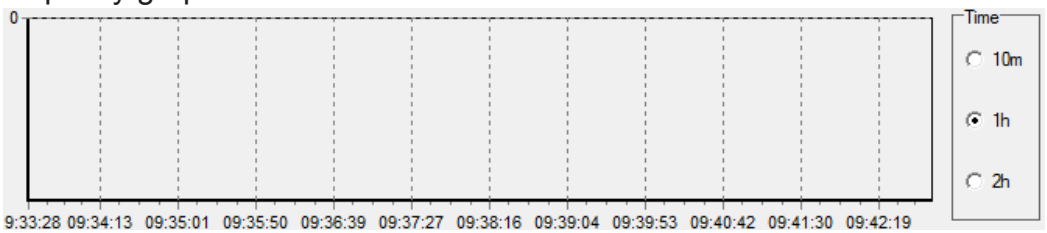


This diagram will show the motor home, safety door switch information, programmer status, and tray in and out situation.

The rest data:

Program Pass	0	0%
Pick IC Fail	0	0%
Program Fail	0	0%
User Name	0	
Start Time	2014/02/07 - 09:33:27	
End Time	00:00:00	
Working Time	00:00:00	
Project		
Device		
IC Check Sum		
Procedure		

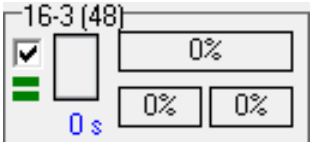
Capacity graph:



It will show the capacity by second and will record the the pause and start as well.

Socket status:

For example, the 3rd socket of 16th programmer. The total programmer no is 48.



Upper %: Pass rate.

Bottom left %: Program fail rate.

Bottom right %: Eject rate.

Showing the socket status. The upper green is "enable the socket". The bottom green is "power on the socket". Normally, both are green. If upper is red, it means the socket has been closed. If bottom is red, it means the socket power has been removed.

Empty, waiting for the IC.

Blue, ready for programming.

Yellow, working, under programming.

Green, programming pass.

Red, programming fail.

Error, IC misplaced.

Grey, the socket is close.

Counter

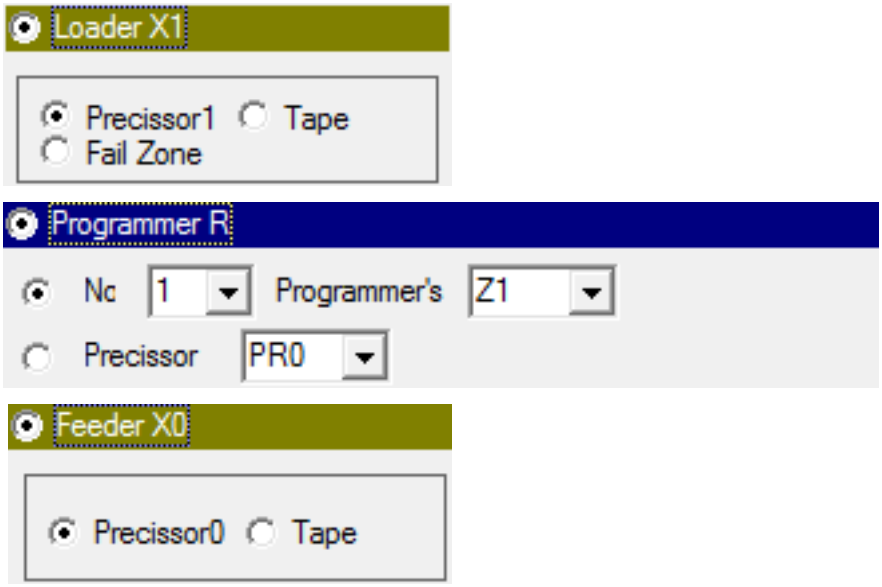
2-2 Order Fine Tune

You can set the pause point during the order execution under the engineers or supervisor authority.

The fine tune paramenter will not cover the file automatically. Please save the data on the main page after finishing the order.

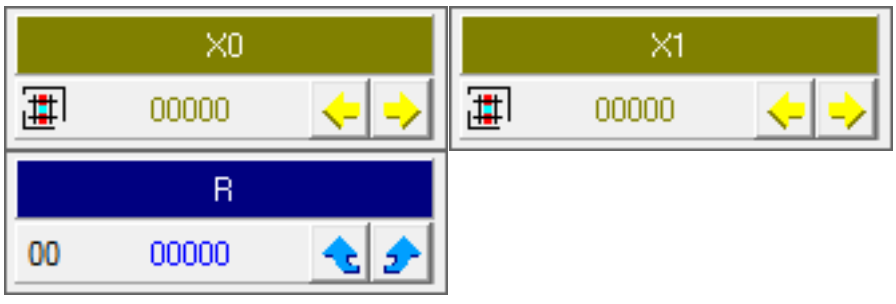
Order fine tune procedure.

Select the area.

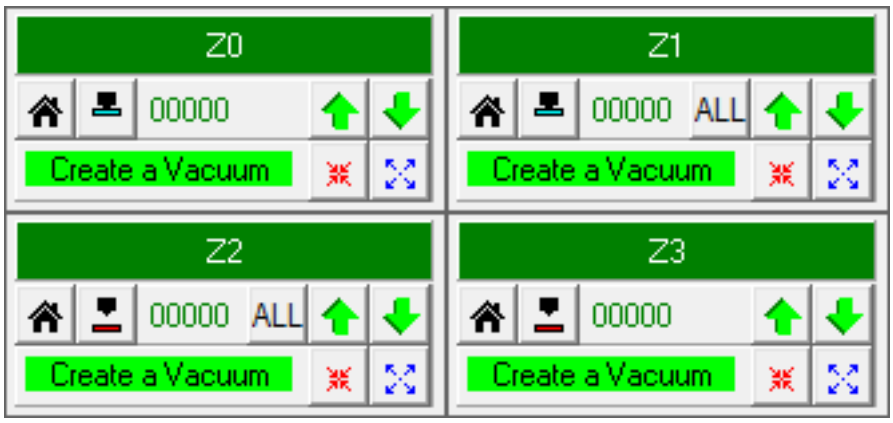


Click

The machine will not stop at once until working to the assigned area. You can do fine tune from the follows.

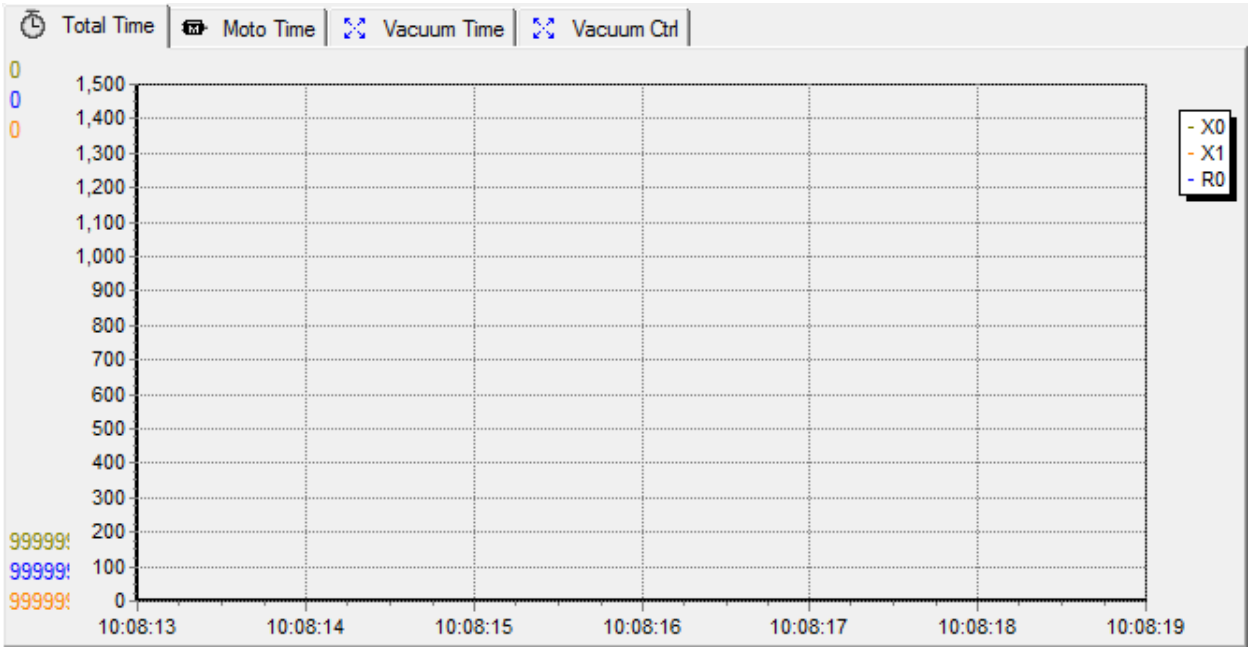


It's single step for every fine tune. Please set the interval time abvoe 0.2s for each movement.



The axes which have nozzle function, Z0, Z1, Z2, Z3, except single step function, there are home , return origin and valve switch functions.

Click green arrow for finished the fine tune to contiune working.



You can adjust the delay time for each axis on this area. If you change the time, will affect productivity. Therefore, please do not adjust it.

Total time: X0, X1, R0 axes movement consuming graph.

Motor consuming time: X0, X1, R0, Z0, Z1, Z2, Z3 consuming graph.

Vacuum consuming: Z0, Z1, Z2, Z3 axes sucking and blowing consuming graph.

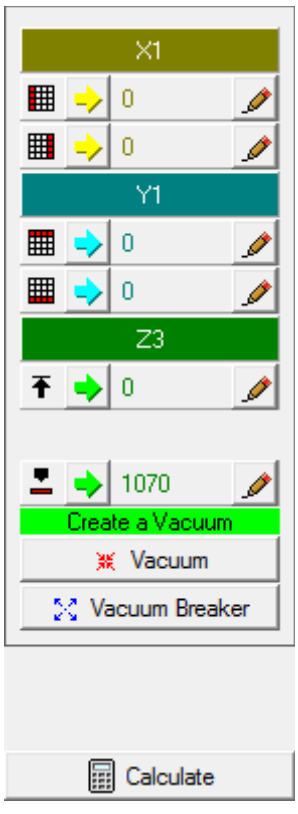
Vacuum adjustment: Able to adjust the delay time for sucking and blowing of Z0, Z1, Z2, Z3 axes. Please refer 3.5 Others.

Chapter 3 Tuning UI

There are 3 levels for the log in authority, basic, engineers and supervisor.

	Basic Authority	Engineers Authority	Supervisor Authority
Main munu	✓	✓	✓
Coordinate calculation		✓	✓
Loader		✓	✓
Programmer		✓	✓
Feeder		✓	✓
I/O		✓	✓
Other		✓	✓
Account			✓

Icon	Introduction	Note
X1	Robot name	Same direction with the same color
	Setting area	
	Move to	Same color with the motor
0	Step for motor setting	Same color with the motor
	Key in the motor position to the robot step.	As the patient, click , it will show the X1 motor coordiate automatically.
Creat a Vacuum	Open is green, cloase is red.	
Vacuum	Press is open, release is close.	

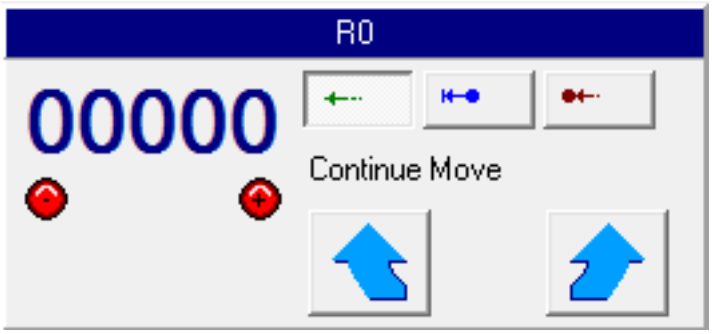


The motor control UI is as below.

Icon	Instruction
	Triggle the left and right both side
	Triggle the origin. Not all of the motors have origin.
	Servo (excitating)
	Home

You can star the operation after motor excitating and and homing There 3 operation ways, continue move, move and go to.

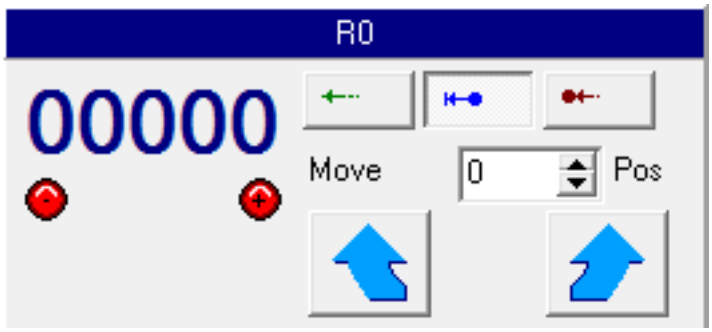
Continue Move:



Press the arrow inco, do not release for continue move. Release for stop the movement.

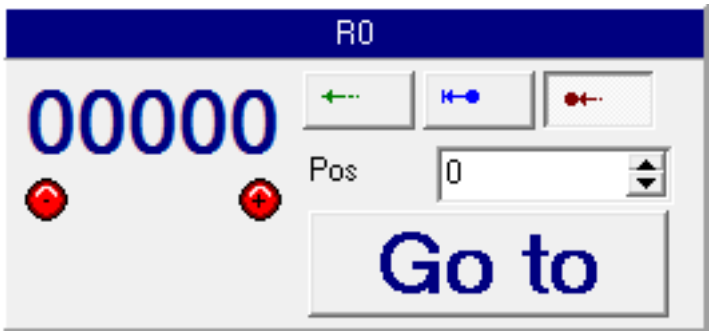
※ No this function for Z axis.

Move:



Key in the movement pos, and press the arrow icon for the movement. If the pos exceed 10, will request the motor to the assigned position to assure the safe adjustment.

Go to:



Key in the pos and press the arrow key for the go to movement. Once reach to pos or release the arrow icon, the machine will stop. The difference between Move is once reach the desitination, if you press the arrow icon, it will not move. If the pos exceed 10, will request the motor to the assigned position to assure the safe adjustment.

Right button menu.

Servo on: exciting.

Servo off: un-exciting

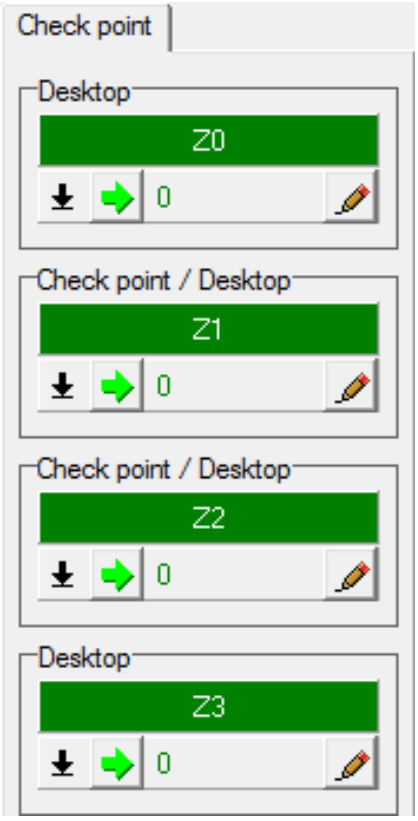
Home: go back to origin.

Stop: stop

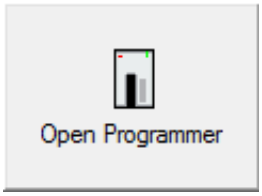
All back Home: all of the motor exciting and homing.

3-1 The Coordinate Calculating

You can key in the tray size and pick & place height for the coordinate calculation. Moreover, you can inquire the IC and socket size from the programmer for the calculation. If the Z axis has been changed, and the difference is big, please use the follow function to calibrate the Z axis.

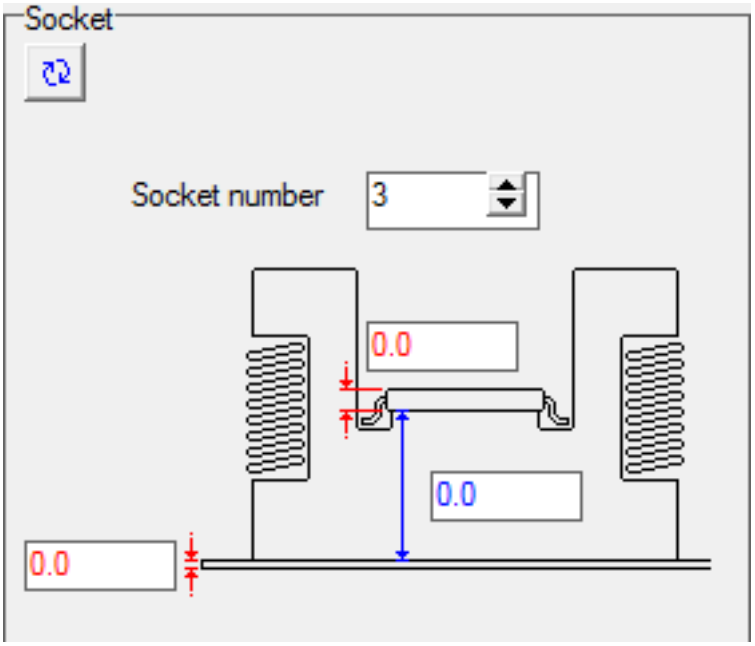


The 4 Z axes calibration position is the Z axis pos to the desk. The Z1 and Z2 can not reach the desk ans will use other points.

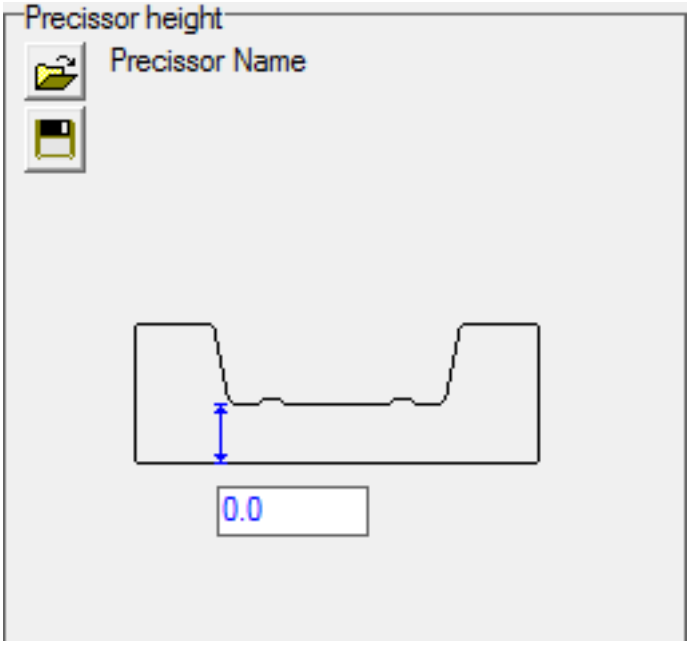
Please to to the main menu and click 

for reading the socket and programming data before the calibration.

The introduction is follow.

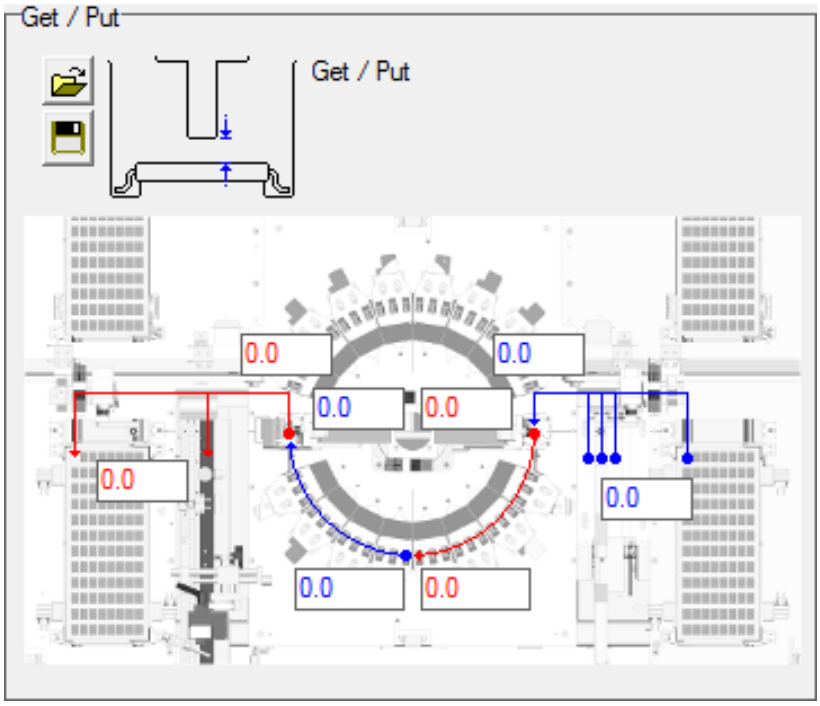


Please key in the data manually. Or click for inquiring programmer to get the size included socket number, IC height, socket height or PCB height.

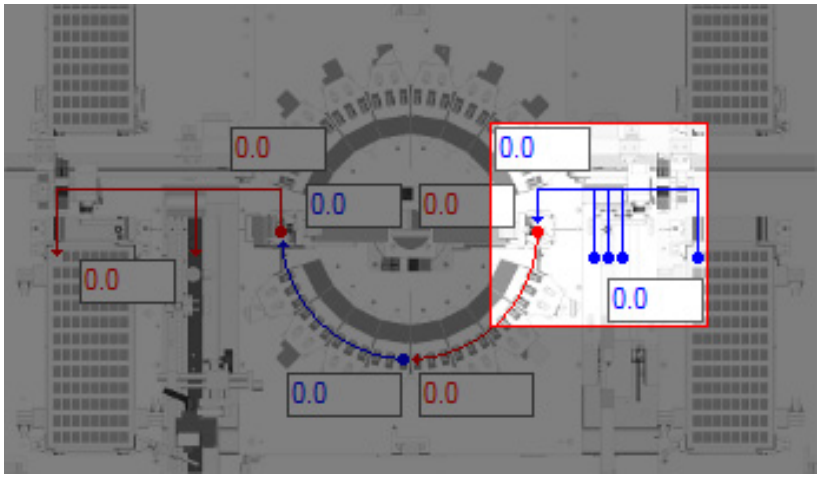


You can key in the precissor height or clcik to load the data which saved before.

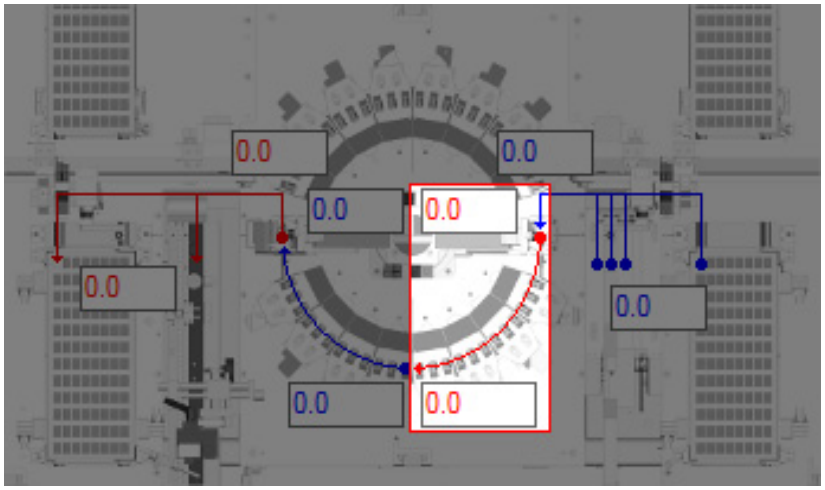
After you key in the height, you can save it for the future use.



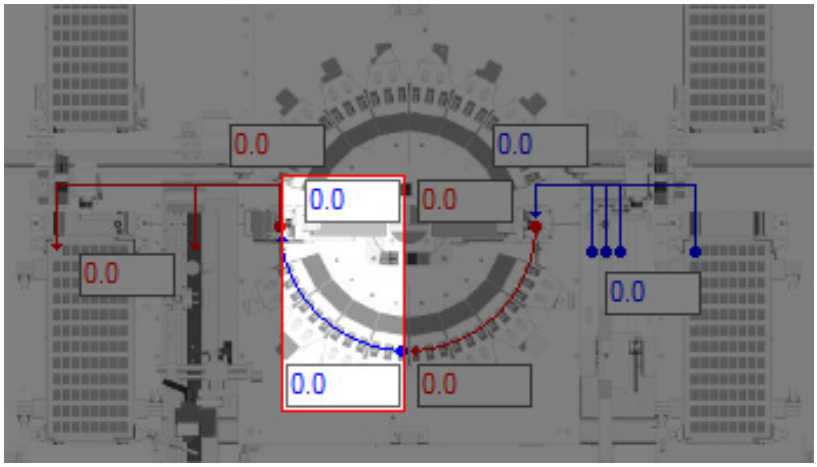
The diagram show the hieghts of Z axis on each place which is according to the IC size and weight. There are 4 areas.



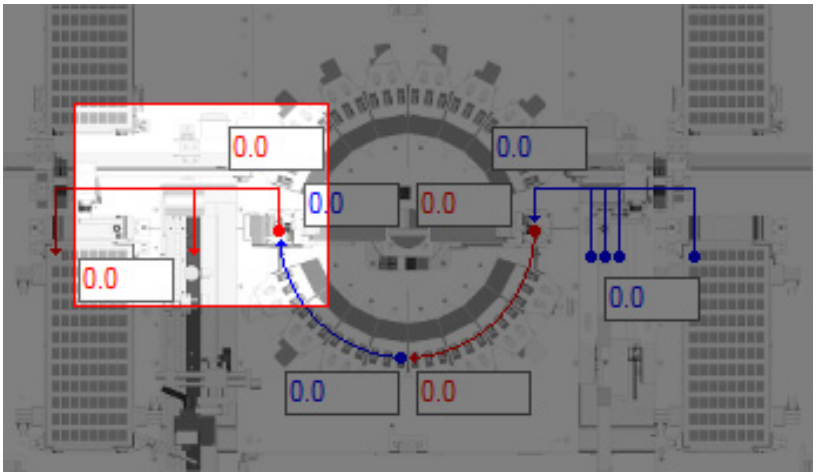
1. Z0 is feeder axis of the feeder side. The hieght is from pick point to the precissor.



2. Z1 is the feeder axis of the programmer. The height is from precissor to the socket.

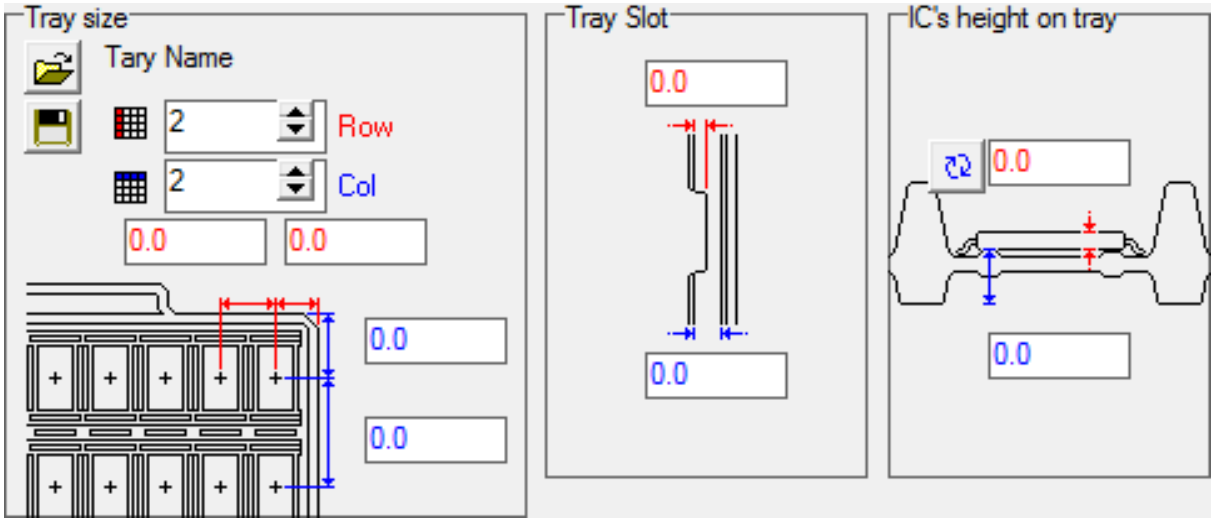


3. Z2 is the loader axis of the programmer. The height is from socket to the presiccor of loader.



4. Z3 is the loader axis of loader side. The height is from precissor to the release point of the tray or reel media.

You can do the loading and saving function.



The diagram shows the tray size included in and out.

- Tray vertical number.
- Tray horizontal number
- The horizontal distance of two ICs
- The horizontal distance from the tray side to the center.
- The vertical distance of two Ics
- The horizontal distance from the tray side to the center.

Tray Slot:

- Slot height
- Tray height

IC height on tray:

- IC height (You may click to inquire progarmmer for the IC height)
- Total height of tray and IC.

You can click and save the record.

※Note: the IC height will not be saved.

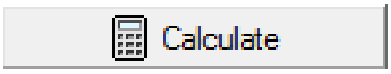
3-2 Feeder & Loader

There are tray and reel for the loader types. There are tray, reel and tube for the feeder types. Both of them provide tray in and out automatically. You can adjust the the coordiate manually.

3-2-1 Tray

There are 3 parts need to be adjusted for tray out. Please adjust the size first by pos or spec.

Main	Sub	Inco	Introduction
Size		Row	Tray vertical number
		Col	Tray horizontal number
	Step		X axis to the leftest of the tray
			X axis to the rightest of the tray
			Y axis to the upperest of the tray
			Y axis to the lowest of the tray
			Z axis to the top
			Z axis to the tray
		Create a Vacuum	Create a Vacuum?
			Vacuum
			Vacuum breaker

Finished the above and click 

for the tray coordinate.

Mian	Icon	Introduction
Location	Row	Tray vertical number
	Col	Tray horizontal number
		X to the n device. You can set the n from row. Or directly key in from the right side of the tray.
		Y to the n device. You can set the n from col. Or directly key in from the right side of the tray.
		Move X and Y at th same time.
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

Main	Icon	Introduction
Precissor		X to the precissor
		PR face to up
		PR face to right
		PR face to down
		PR face to left
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

3-2-2 Reel

Main	Icon	Introduction
Location		X to the reel
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

Mian	Icon	Introduction
Location		X to the precissor
		PR face to up
		PR face to right
		PR face to down
		PR face to left
		Z axis to the highest
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

3-2-3 Tube

Main	Icon	Introdution
Location		X to the tube
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

Main	Icon	Introduction
Location		X to the precissor
		PR face to up
		PR face to right
		PR face to down
		PR face to left
		Z axis to the top
		Z axis to the tray
	Creat a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

3-2-4 Fail Zone

Mian	Icon	Introduction
Location		X to fail zone
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

Main	Icon	Introduction
Precissor		X to the precissor
		PR face to up
		PR face to right
		PR face to down
		PR face to left
		Z axis to the top
		Z axis to the tray
	Create a Vacuum	Create a Vacuum?
		Vacuum
		Vacuum breaker

3-2-5 Tray Exchange

Main	Icon	Introduction
Location		Y to the tray out location
		Y to the tray in location
		TZ to the tray out
		TZ to the tray in
		TZ to the split location
		TZ to the lowest of tray in
	Tray empty	Tray empty?
	Tray full	Tray full?
	Float	Float?
	Tray lock	Tray lock?
	Tray unlock	Tray unlock
	Un-stretch	4 latches on the loader
	Stretch	4 latches on the loader
	Split	Un-stretch & stretch control for the 4 latches
	Tray positioning	Tray positioning mechanism

3-3 Programmer

You can adjust the coordiate manually as well.

Main	Col	Icon	Introduction
All	All Shift		Move to the first socket and other sockets will move following. The defaults pos will show as well. ※Warning: The step will remove all of the previous setting.
	Feeder axiss standard height		Z1 to the top
			The height of Z1 released IC point to the socket. If adjust this part, all of the height of Z1 released IC point will be changed accordingly.
		Creat a Vacuum	Create a Vacuum?
			Vacuum
			Vacuum breaker
	Loader axis standard height		Z2 to the top
			Move to the first socket and other sockets will move following.
		Create a vacuum	Create a vacuum?
			Vacuum
			Vacuum breaker
	Feeder axis uniform height		Adjust all of the height of Z1
	Loader axis uniform height		Adjust all of the height of Z2

Main	Col	Icon	Introduction
Each	Move to the socket		Move R and Z1will go to the socket
		PressBar Up	If the press bar reach the n socket top
		PressBar Down	If the press bar reach the n socket down
		Press Cylinder	Star the press bar of the n socket
	Feeder Axis		Z1 to the top
			Z1 to the point for IC release
		Creat a Vacuum	Create a Vacuum?
			Vacuum
			Vacuum breaker
	Loader Axis		Z2 to the top
			Z2 to the IC pick point
		Create a Vacuum	Create a Vacuum?
			Vacuum
			Vacuum breaker

There is a CCD for adjustment. You can open the CCD image at the CCD page. There is 3 kind lines for the auxiliary.

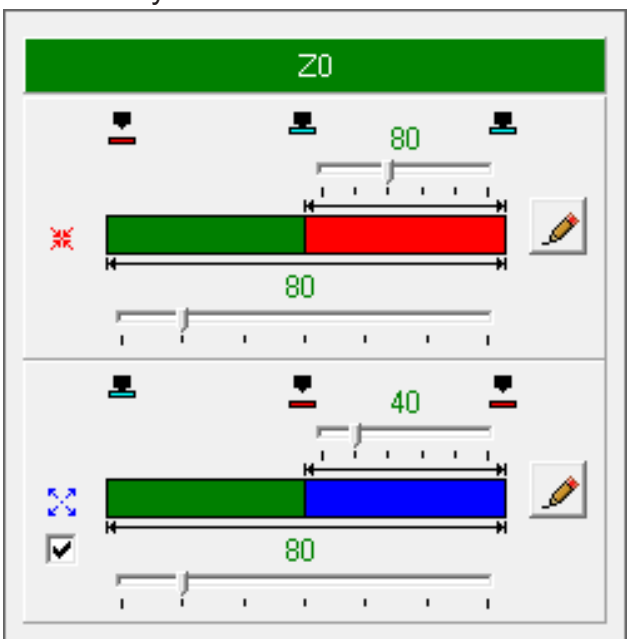
- Record the horizontal position of the nozzle pick up IC.
- Record the width of the nozzle axis.
- Record the center of nozzle axis.

3-4 I/O

Icon	Fun	Introduction
	In	True False
	Out	True False

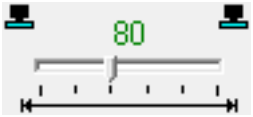
3-5 Others

Valve delay:

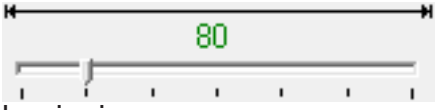


The diagram show the valve delay setting when run order.

Suction

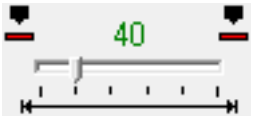


Stable time: The delay time from the suction beginning.

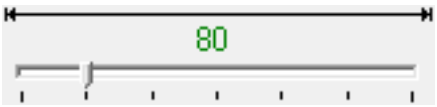


Max time: The max delay time from the suction beginning.

Blowing



Stable time: The delay time from the blowing beginning.



Max time: The max delay time from the blowing beginning.

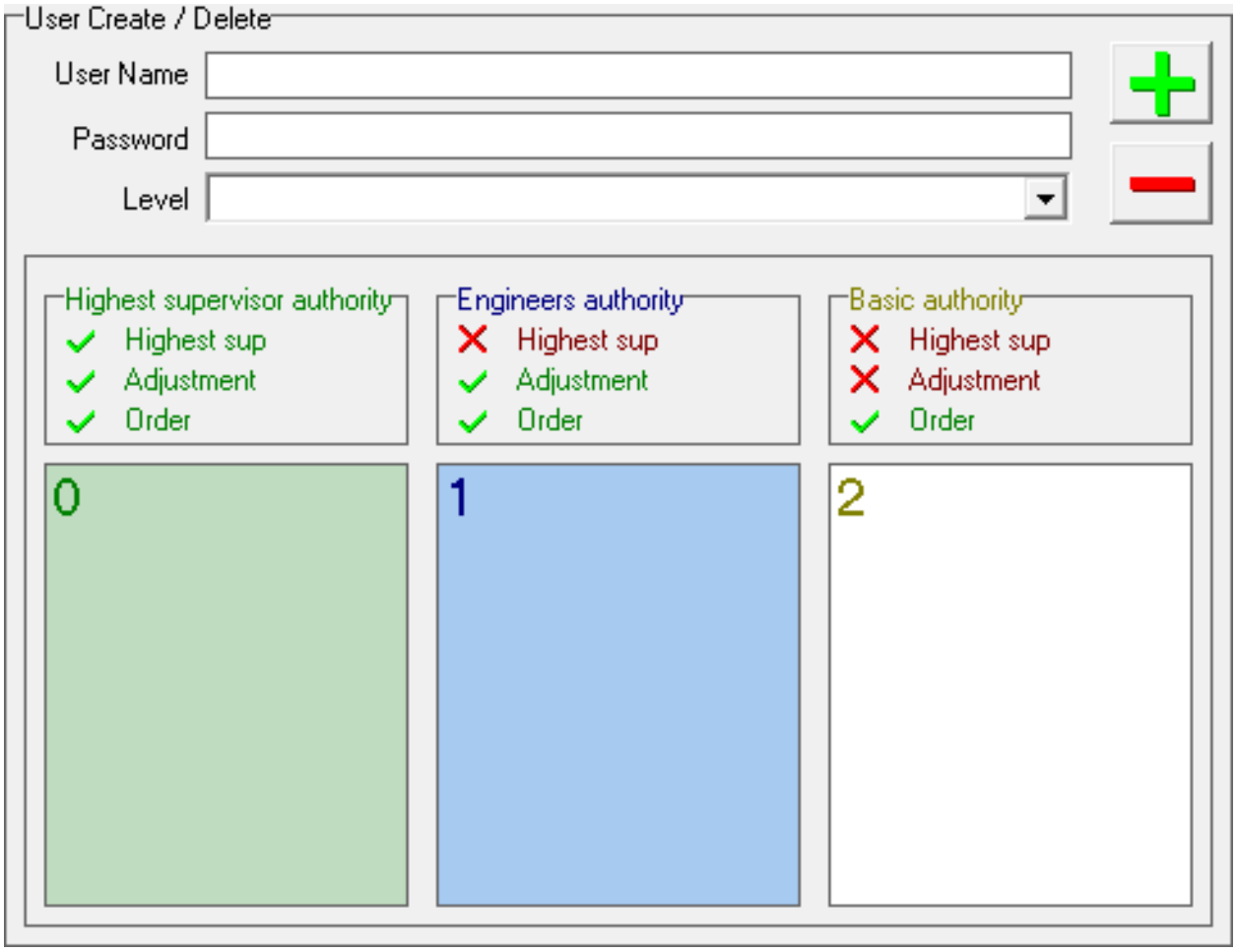
Enable vacuum breaker

Save

Press for returning the manufacturer default.

3-6 Account Manger

You can add or delete account by click or . Or click and edit the follow window.



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